

Options for Closing the Gap on Forestry Management Measures

2/11/2015

Background/Context

EPA and NOAA find that gaps in Oregon's coastal nonpoint program remain. Specifically, the State has not adopted additional management measures applicable to forestry that are necessary to achieve and maintain applicable water quality standards and protect designated uses. This paper describes how Oregon may strengthen and expand its forest management measures in its coastal nonpoint management area in ways that will achieve a healthy resilient coastal environment where forest management measures satisfy the statutory objectives of the Coastal Zone Act Reauthorization Amendments (CZARA).

General CZARA Guidelines for Approval

There are two pathways for states to achieve an approvable program: 1) a *regulatory program*; and/or 2) a *voluntary approach*. A voluntary approach requires that the State provide the following:¹

- a description of the voluntary programs, including the methods for tracking and evaluating those programs Oregon will use to encourage implementation of the management measures;
- a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary; and
- a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing authorities where necessary.

Options for Oregon to Satisfy its CZARA Requirement to Adopt Additional Management Measures for Forestry

- **Riparian Protection**
 - **Small and Medium Fish-Bearing Streams: State currently pursuing regulatory program:**
 - Current Deficiencies/Shortfall: Inadequate riparian protection for small and medium fish-bearing streams. Available data, including Ripstream Study data and

¹ See NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs.
<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>

analysis, shows that current Oregon Forest Practices Act measures do not ensure that forest operations meet Oregon's narrative water quality criterion for protecting cold water (PCW) in small and medium fish-bearing streams. Importantly, unlike the PCW criterion, the CZARA program requirements are not limited to waters currently inhabited by threatened or endangered salmonid fishes, so this deficiency in protecting existing cold water applies to other small and medium fish-bearing streams across the coastal nonpoint management area, as well.

- State Actions Needed: 1) **Complete riparian rulemaking by July 1, 2016;** 2) Rule should be designed to meet the PCW criterion in all small and medium fish bearing streams and upstream waters supporting the PCW criterion; and 3) The rule should also include a means to monitor whether forest operations are complying with the PCW criterion.
- **Non-Fish-Bearing Streams: State may pursue regulatory and/or voluntary approaches:**
 - Current Deficiencies/Shortfall: The Oregon Forest Practices Rules do not require riparian vegetation protections for small type N streams in the Coast Range Range (reference: Table 5 for OAR 629-640-0200(6) – “Vegetation Retention for Specified Small Type N Streams” provides that “no vegetation” is required for the Coast Range). The RipStream Study results, and earlier studies, show that the State's current Forest Practices Act measures on private forest land, including in the Coast Range (which encompasses most of the coastal nonpoint program management area), do not ensure that the State's water quality standards are being met.

State Action Needed: **By July 1, 2016**, revise and implement additional management measures for riparian areas adjacent to small non-fish-bearing streams necessary to achieve and maintain water quality standards, including the PCW criterion, and protect designated uses. This could be done through regulatory or voluntary means (or a combination of both).

Voluntary—If the State chooses a voluntary approach to meet all or part of the non-fish bearing streams requirement, the State must also meet the following: **By July 1, 2016**, Oregon must demonstrate how it is showing compliance with elements of a voluntary program (see “General CZARA Guidelines for Approval” section above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs, <http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>, and NOAA and EPA's 1995 “Flexibility for State Coastal Nonpoint Programs”, <http://coast.noaa.gov/czm/pollutioncontrol/media/6217flexibilityguidance.pdf>, including identification of enforceable “backstop” authorities that will be effective in achieving widespread implementation of the management measures. Such existing general authorities could include "bad actor" laws, enforceable

water quality standards, general environmental laws and prohibitions, and other existing authorities that will accomplish the implementation of the management measures without requiring new, more specific authorities).

- **Forestry Roads: Regulatory and/or voluntary approaches would need to address the following items:**

- Current Deficiencies/Shortfall:

- *Regulatory* - Recent rule changes and new policies do not sufficiently address water quality impairments associated with “legacy” roads, (i.e., abandoned roads created prior to the Forestry Practices Act that would not meet current State requirements with respect to siting, construction, maintenance, and road drainage) or impairments associated with the portion of the existing network where construction or reconstruction is not proposed.
 - *Voluntary* –ODF’s voluntary program does not adequately address legacy roads, nor has the State satisfied all elements needed for a voluntary program (see above).

- Examples of State Actions Needed:

- *Regulatory* – **By July 31, 2016**, establish regulations and or policies that address the above deficiencies. Or,
 - *Voluntary* – **By July 1, 2016**, 1) establish a road survey or inventory program that considers active, inactive, and legacy/old roads that have the potential to deliver sediment to streams; 2) develop a ranking system to establish priorities for road repair or decommissioning; 3) develop a timeline for addressing priority road issues; and 4) develop a public reporting and tracking component to assess progress for remediating identified forest road problems.

For an effective voluntary approach, all are needed as a package. The State must also meet other elements needed for a voluntary program (see General CZARA Guidelines for Approval section above or NOAA and EPA’s 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

- **Protection of Landslide-Prone Areas: Regulatory and/or voluntary approach would need to address the following items:**

- Current Deficiencies/Shortfall:

- *Regulatory* - Oregon’s current rules protect for public safety against shallow, rapidly moving landslides. Oregon does not have additional

management measures for forestry in place to protect high-risk landslide areas to ensure water quality standards are met and designated uses are protected. While a natural rate of landslide activity is not preventable, and is even desirable to provide large woody debris to enhance habitat complexity and value, there needs to be a balanced program that prevents human-induced landslide activity that adds excessive sediment to streams, or degrades streams through debris flows, impairing water quality and blocking or impairing salmon habitat.

- *Voluntary* – The voluntary measure identified by the State gives landowners credit for leaving standing live trees in landslide prone slopes as an eventual source of large wood for fish-bearing streams. NOAA and EPA do not consider this voluntary action a sufficient management measure to reduce high-risk landslides that adversely affect water quality standards or designated uses. While this is a good management practice, the measure is not designed to prevent human-induced landslides, but rather to ensure large wood is available to provide additional stream complexity when a landslide occurs. In addition, the State has not demonstrated that its voluntary measure is effective in controlling the rate of human-induced landslides and debris flows. Furthermore, the State has not explained how it will monitor and track the implementation and effectiveness of voluntary measures; identified any enforceable back-up authority to ensure implementation of the voluntary measures; or provided a commitment to rely on that back-up authority to ensure effective implementation.
- Examples of State Actions Needed:
 - *Regulatory* – **By July 1, 2016**, establish a program that includes a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff and making maps of high-risk landslide areas available to foresters during harvest planning. Adopt BMPs to protect high-risk landslide areas that have the potential to impact water quality and designated uses, such as no-harvest restrictions on high-risk areas and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized.
 - *Voluntary* – **By July 1, 2016**, the State could pursue several actions that would collectively address this issue such as: 1) Develop a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff. 2) Develop robust voluntary programs to encourage and incentivize the use of forestry BMPs to protect high-risk landslide areas that have the potential to impact water quality and designated uses, such as no-harvest restrictions on high-risk areas and ensuring that roads are designed, constructed, and maintained in such a

manner that the risk of triggering slope failures is minimized. Wide dissemination of maps of high-risk landslide areas could improve water quality by informing foresters during harvest planning. 3) Institute a monitoring program to track compliance with the FPA rules and voluntary guidance for high-risk landslide-prone areas and the effectiveness of the practices in reducing slope failures. Identify ODF and DEQ general authorities for enforcing changes when voluntary measures are not implemented. 4) Integrate processes to identify high-risk landslide prone areas and specific BMPs to protect these areas into the TMDL development process. .

For all voluntary programs, the State must meet all elements needed for a voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

- **Spray Buffers for Aerial Application of Herbicides on Non-Fish-Bearing Streams: regulatory and/or voluntary approaches that could be established include the following items:**
 - Current Deficiencies/Shortfall:
 - *Regulatory* - The State does not have any “no-spray buffer” requirements to protect non-fish-bearing streams when herbicides are aerially applied.
 - *Voluntary* – Voluntary no-spray buffers do not exist, nor is there monitoring and tracking on non-fish-bearing streams.
 - Examples of State Actions Needed:
 - *Regulatory* – **By July 1, 2016, 1)** adopt rules for aerial herbicide spray buffers for small, non-fish-bearing streams; or 2) adopt riparian buffer protections for timber harvest along non-fish-bearing streams that are also designated no-spray buffers, provided such buffers are sufficiently wide to reduce pesticide loading in these streams during and shortly after aerial spraying; Or
 - *Voluntary* – **By July 1, 2016, 1)** expand existing guidelines to create and maintain voluntary buffers for the aerial application of herbicides on non-fish-bearing streams and educate and train applicators on the new guidance; 2) monitor and track that voluntary guidelines are followed; 3) identify ODF and DEQ general authorities for enforcing changes when voluntary measures are not implemented; 4) revise the ODF Notification of Operation form to include a check box for aerial applicators to acknowledge the need to comply with FIFRA labels, especially for herbicides that are prohibited from use in/above waterbodies, for all

stream types, including non-fish-bearing streams; and 5) track and evaluate the implementation of voluntary measures for the aerial application of herbicides along non-fish bearing streams to assess the effectiveness of these practices.

For all voluntary programs, the State must meet all elements needed for a voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

Options for Closing the Gap on Forestry Management Measures

~~(Edits from Richard Whitman and Dick Pedersen)~~

~~(Additional couple of comments from W. Stelle)~~

~~(Comments Added by C. Psyk on 1/22/2015)~~

01/21/2015

Background/Context

EPA and NOAA find believe that gaps in Oregon's coastal nonpoint program remain. Specifically, the State has not adopted additional management measures applicable to forestry that are necessary to achieve and maintain applicable water quality standards and protect designated uses. ~~is coastal zone management measures for forestry need to be strengthened in order to assure that forest lands are being managed to achieve clean water and healthy watershed conditions. This paper describes how Oregon may strengthen and expand its forest management measures in its coastal nonpoint management area in ways that will achieve a healthy resilient coastal environment where forest management measures satisfy the Congressional statutory objectives of the Coastal Zone Act Amendment Reauthorization Amendmentset (CZARA).~~

General CZARA Guidelines for Approval

There are two pathways for states to achieve an approvable program: 1) a *regulatory program*; and/or 2) a *voluntary approach*. A voluntary approach requires that the State provide the following:¹

- a description of the voluntary programs, including the methods for tracking and evaluating those programs Oregon will use to encourage implementation of the management measures;
- a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary; and
- a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing authorities where necessary; ~~notwithstanding the statutory "BMP safe harbor" provision in the Forest Practices Act.~~

¹ See NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs. <http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>

Comment [PC1]: The purpose of this document was to summarize the options that the State could pursue to address the gaps in forestry management measures. CZARA requires that the gaps be addressed through either a regulatory program or voluntary program. The specific substance options in this summary discussion document are "options" not have to dos. The only have to do is to address the gaps and to do so either through a regulatory or voluntary program.

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Comment [AC3]: This statement comes directly from the opening para. of our decision doc. The lang. related to WQS and designated uses is what CZARA requires of us and cannot be stricken and replaced with "healthy watershed" as the state proposed, since that is inconsistent with statutory requirements of the program.

Comment [AC4]: Stating "coastal zone MMs for forestry" is incorrect". 1) is coastal nonpoint program MMs and 2) is add MMs for forestry, not the forestry MMs. We've already found the state has satisfied the forestry MMs.

Comment [AC5]: I see this as an important distinction to show that is not just strengthening existing MMs but developing additional ones too, as they were conditioned to do.

Comment [HA6]: We need to have a better understanding of this statement. I am not sure what this infers or implies.

Options for Oregon to Strengthen its Forestry Management Measures to Satisfy the its CZARA Requirement to Adopt Additional Management Measures for Forests

• **Riparian Protection**

- **Small and Medium Fish-Bearing Streams:** State currently pursuing regulatory program:
 - Current Deficiencies/Shortfall: Inadequate riparian protections for small and medium fish-bearing streams. -Available data, including Ripstream Study data and analysis, shows that current Oregon Forest Practices Act measures do not ensure that forest operations meet Oregon's narrative water quality standards criterion for protecting cold water (PCW) standard criterion in small and medium fish-bearing streams [in areas currently and historically occupied by salmon, steelhead and bull trout habitat]. Importantly, unlike the PCW criterion, the CZARA program requirements are not limited to waters currently inhabited by threatened or endangered salmonid fishes, so this deficiency in protecting existing cold water applies to all other small and medium fish-bearing streams across the coastal nonpoint management area, as well.
 - State Actions Needed: 1) **Complete riparian rulemaking by July 1, 2016;** 2) Rule should be designed to achieve meet the PCW standard criterion in all small and medium fish bearing streams and upstream waters supporting the PCW standard criterion current and historical salmon, steelhead and bull trout habitat; and 3) The rule should also include a means to monitor whether it is succeeding in assuring that forest operations are complying with the PCW standard criterion.
- **Non-Fish-Bearing Streams:** State may pursue regulatory and/or voluntary approaches:
 - Current Deficiencies/Shortfall: The Oregon Forest Practices Rules do not require riparian vegetation protections for small type N streams in the Coast Range Geographic region (reference: Table 5 for OAR 629-640-0200(6) – “Vegetation Retention for Specified Small Type N Streams” provides that “no vegetation” is required for the Coast Range). Current Oregon Forest Practices Act measures may not ensure that forest operations comply with the PCW standard. The RipStream Study results, and earlier studies, show that the State's current Forest Practices Act measures on private forest land, including in the Coast Range, (which encompasses most part of the coastal nonpoint program management area), do not ensure that the State's measures should ensure that forest operations meet the State water quality standards for protecting cold water criterion are being met, including in the Coast Range covered under CZARA.
 - Examples of State Actions Needed: 1) **By July 1, 2016,** identify revise and adopt implement additional management measures for riparian areas adjacent to small

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Comment [AC9]: This qualification is not consistent with statements in our findings.

I defer to the science experts on the tech team but I didn't believe that the RipStream study limited their PCW finding to areas currently/historically occupied by salmon, steelhead and bull trout.

Comment [WD8]: From Allison Castellan: "I think we may need to provide a bit more flexibility that a blanket "all" statement since the needed action below talks about upstream waters supporting the PCW criterion. Would ... [1]

Comment [HA10]: One of the key RipStream objectives was to look at the temperature response to timber harvest at 33 sites after ODF rules were applied. Ten of the 33 of those sites were actually type N streams or undefin ... [2]

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Comment [HA12]: The Oregon Forest Practices Rules do not require riparian vegetation protections for type N streams in the Coast geographic region.

Comment [PC13]: We reviewed the OAR rule cited above and believe our statement is correct. OAR 629-635-0200(6) provides that "Operators shall retain all understory vegetation and non-merchantable conifer trees (conif ... [4]

Comment [WD14]:

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non-fish-bearing streams necessary to achieve and maintain water quality standards, including the PCW criterion, and protect designated uses, to ensure that the PCW standard is met, whether This could be done through regulatory or voluntary means regulatory or voluntary (or a combination of both).

Comment [AC17]: This statement is now consistent with statements made in our decision doc (see last full para. on pg. 7). State's rewrite (which I changed) was not.

Voluntary—If the sState choses a voluntary approach to meet all or part of the non-fish bearing streams requirement, the sState must also meet the following: 2) **By July 1, 2016**, identify and provide to NOAA and EPA the monitoring program associated with any voluntary measures, and the general authorities ODF and DEQ will rely on if voluntary measures are found to be inadequate to achieve the PCW standard on an ongoing basis. 3) **By July 1, 2016**, Oregon must demonstrate how it is showing compliance with elements of a voluntary program (see “General CZARA Guidelines for Approval” section above or NOAA and EPA’s 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs, <http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>, and NOAA and EPA’s 1995 “Flexibility for State Coastal Nonpoint Programs”, <http://coast.noaa.gov/czm/pollutioncontrol/media/6217flexibilityguidance.pdf>, including identification of enforceable “backstop” authorities that will be effective in achieving widespread implementation of the management measures. Such existing general authorities could include “bad actor” laws, enforceable water quality standards, general environmental laws and prohibitions, and other existing authorities that will accomplish the implementation of the management measures without requiring new, more specific authorities). (see “General CZARA Guidelines for Approval” section above or NOAA and EPA’s 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs,). (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).

Comment [AC18]: Listing these as “examples” of state actions needed was not appropriate as these are MUSTS, not optional, if a state pursues a voluntary approach. Therefore, I have reframed as noted.

Comment [AC19]: This is encompassed by “compliance with elements of a voluntary program so not do need to restate”.

Comment [d20]: How is compliance determined? Is it buffers of a certain distance everywhere all the time or an approach that achieves the outcome of cold water and habitat?

Comment [AC21]: See bullets outlining requirements for voluntary programs under CZARA under “General CZARA Guidances for Approval” on first page.

Comment [PC22]: Compliance will depend on what sort of guidelines or requirements the State establishes and what level of flexibility it builds into those guidelines for site specific reasons. What we expect here is for the state to provide a description of the elements of the voluntary program they will adopt if they choose to go the voluntary program route.

• **Forestry Roads: Regulatory and/or voluntary approaches would need to address the following items:**

○ **Current Deficiencies/Shortfall:**

- *Regulatory* - Recent rule changes and new policies do not sufficiently address water quality impairments associated with “legacy” roads, (i.e., abandoned roads created prior to the Forestry Practices Act that do would not meet current State requirements with respect to siting, construction, maintenance, and road drainage) or impairments associated with the portion of the existing network where construction or reconstruction is not proposed.
- *Voluntary* —EPA and NOAA believe the current ODF’s voluntary program does not adequately address legacy roads, nor has the sState satisfied all elements needed for a voluntary program (see above). If it

Comment [AC23]: This phrasing is inconsistent with how this section is structured elsewhere in the document. This summary of current deficiencies needs to reflect statements from our decision doc. Therefore is it implied that NOAA and EPA found And it does not need to be stated. I disagree with the state’s word choice of “NOAA and EPA believe”. We shouldn’t let the state put words in our mouth here.

Comment [d24]: Or “it cannot be determined if the voluntary program adequately addresses legacy roads”

~~cannot be determined that the current voluntary program addresses legacy roads, the list below provides options for addressing this.~~

Comment [AC25]: This sentence does not belong in a section titled "Current Deficiencies/Shortfalls"

o **Examples of State Actions Needed:**

- *Regulatory* – ~~By December~~ **July 31, 2016**, establish regulations and or policies that address the above deficiencies. Or,
- *Voluntary* – **By July 1, 2016**, 1) establish a road survey or inventory program that considers active, inactive, and legacy/~~old~~ roads that have the potential to deliver sediment to streams (~~i.e., similar to WA's and ID's~~); 2) develop a ranking system to establish priorities for road repair or decommissioning; 3) develop a timeline for addressing priority road issues ~~including retiring or restoring forest roads that impair water quality~~; and 4) develop a public reporting and tracking component to assess progress for remediating identified forest road problems.

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For an effective voluntary approach, all are needed as a package. The ~~s~~State must also meet other elements needed for a voluntary program (see General CZARA Guidelines for Approval section above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).

- **Protection of Landslide-Prone Areas: Regulatory and/or voluntary approach would need to address the following items:** ~~{To be clarified by EPA/NMFS re relation to LWD and sedimentation concerns}~~

o **Current Deficiencies/Shortfall:**

- *Regulatory* - Oregon's current rules protect for public safety against shallow, rapidly moving landslides. -Oregon does not have additional management measures for forestry in place to protect high-risk landslide areas to ensure water quality standards are met and designated uses are protected. While ~~some level a natural state~~ of landslide activity ~~may is~~ not be preventable, and ~~some may is~~ even be desirable to provide large woody debris to enhance habitat complexity and value, there needs to be a balanced program that prevents human-induced landslide activity that adds ~~excessively silts sediment to streams, or degrades streams through debris flows,~~ impairing water quality and blocking or impairing salmon habitat.
- *Voluntary* – The voluntary measure identified by the State gives landowners credit for leaving standing live trees in landslide prone slopes as an eventual source of large wood for fish-bearing streams. NOAA and EPA do not consider this voluntary action a sufficient management measure to reduce high-risk landslides that adversely affect water quality

Comment [PC28]: Recruitment of LWD is an important process and landslides provide LWD. However, when forest practices generate landslides at too frequent and too massive a rate, adverse effects can occur such as fish blockage, stream blowout, and sedimentation of spawning areas. Forestry practices need to address the adverse effects of landslides.

standards or designated uses. While this is a good management practice, the measure is not designed to prevent human-induced landslides, protect high-risk erosion areas but rather to ensure large wood is available to provide additional stream complexity when a landslide occurs. In addition, The State has not demonstrated that hasn't shown if its voluntary measure is effective in controlling the rate of human-induced landslides and debris flows. Nor has it Furthermore, the State has not shown explained how it will monitors and tracks the implementation and effectiveness of voluntary measures; identified any enforceable demonstrated it has suitable back-up authority to ensure implementation of the voluntary measures; or, not provided a commitment to usereely on that back-up authority to ensure effective implementation this measure.

o Examples of State Actions Needed:

- *Regulatory* – By ~~{date certain}~~ **July 1, 2016**, establish a program that includes a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff and making maps of high-risk landslide areas available to foresters during harvest planning. ~~{Adopt BMPs to protect high-risk landslide areas that have the potential to impact water quality and designated uses, such as no-harvest restrictions on high-risk areas and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized similar harvest and road construction restrictions for all high-risk landslide-prone areas with the moderate-to-high potential to impact degrade water quality and designated uses, not just those where landslides pose risks to life and property.~~
- *Voluntary* – By ~~{date certain}~~ **July 1, 2016**, the sState could pursue several actions that would collectively address this issue such as: ~~complete the following actions:~~ 1) Establish program that includes a Develop a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff. 2) Develop ~~more robust~~ voluntary programs to encourage and incentivize the use of forestry BMPs to protect high-risk landslide areas that have the potential to impact water quality and designated uses, such as no-harvest restrictions ~~aroundon high-risk areas and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized. Widely Wide dissemination of available~~ Making maps of high-risk landslide areas ~~widely available~~ could improve water quality by informing foresters during harvest planning. 3) Institute a monitoring program to track compliance with the FPA rules and voluntary guidance for high-risk landslide-prone areas and the effectiveness of the practices in reducing slope failures. Identify ODF and DEQ general authorities for

Comment [AC29]: Now the statement is consistent with our decision doc. Yes, the state hasn't satisfied the requirements for a voluntary program but the bigger issue here is that the state hasn't demonstrated it has any voluntary measures are that acceptable.

Comment [HA30]: I support Allison's point. The leave trees in the landslide prone areas are intended to become a source of large wood for downstream fish streams. This measure isn't necessarily intended to prevent landslides that impact water quality.

Comment [WD31]: From Jeff Lockwood: "The non-voluntary measures should be at least as specific as the voluntary measures."

Comment [AC32]: The decision doc. doesn't state that OR has to do all of the voluntary approaches.

Comment [WD33]: From Jeff Lockwood: "This is an important detail – the place you don't want harvest is ON the high-risk site, not next to it."

Comment [WRM*G34]: Not really voluntary, and will slow down overall progress significantly.

~~enforcing changes when voluntary measures are not implemented.~~ 4)
~~Integrate processes to identify high-risk landslide prone areas and specific BMPs to protect these areas into the TMDL development process. Adopt BMPs that include employing no-harvest restrictions around high-risk areas and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized.~~

For all voluntary programs, the sState must meet all elements needed for a voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

Comment [AC35]: I know state recommended striking this (see WRM*G31 comment above) but this is an option and I think still within the realm of possibility. The state can come can say they don't want to do this option, which is fine but we should still include it as an alternative in our first transmittal to the state as it aligns with our decision doc.

- **Spray Buffers for Aerial Application of Herbicides on Non-Fish-Bearing Streams: regulatory and/or voluntary approaches that could be established include the following items: [To be clarified by NMFS re why FIFRA isn't already adequate].**

- **Current Deficiencies/Shortfall:**

- ~~Regulatory - Oregon~~ The State does not have any “no-spray buffer” requirements to protect non-fish-bearing streams when herbicides are aerially applied.
- ~~Voluntary~~ – There are no vVoluntary no-spray buffers do not exist, nor is there monitoring and tracking on non-fish-bearing streams.

Comment [WS36]: Verify the implication that fish bearing streams are adequately protected.

- **Examples of State Actions Needed:** ~~The State should establish a process to track, monitor and verify that FIFRA requirements are being followed when herbicides are applied to small non-fish-bearing streams where currently there are no vegetation requirements in the Coast Range to protect against overspray and drift. Riparian buffer protections for non-fish-bearing streams may suffice as a protective herbicide spray buffer if riparian buffer protections extend the length of the non-fish-bearing stream where spraying occurs; or~~

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Comment [AC38]: This statement is not consistent with the decision doc.

- ~~Regulatory~~ – ~~By [date certain] July 1, 2016, 1)~~ adopt rules for aerial herbicide spray buffers for small, non-fish-bearing streams; ~~or 2)~~ adopt riparian buffer protections for timber harvest along non-fish-bearing streams that, ~~by default, would~~ are also provide a designated no-spray buffers, provided such buffers they are sufficiently wide to reduce pesticide loading in these streams during and shortly after during aerial spraying; ORr
- ~~Voluntary~~ – ~~By [date certain] July 1, 2016, 1)~~ develop expand existing guidelines ~~for to create and maintain voluntary buffers for the aerial application of herbicides on non-fish-bearing streams and educate and train applicators on the new guidance; to retain vegetation around small~~

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Comment [PC40]: As noted above, it does not appear from our reading of the OAR regs that buffer protections are in place for small non-fish-bearing streams in the CZARA coastal area.

Comment [AC41]: I think we really need to provide an example of how we'd like to see it expanded now.

~~non-fish-bearing streams;~~ 2) monitor and track that voluntary guidelines are followed; 3) identify ODF and DEQ general authorities for enforcing changes when voluntary measures are not implemented; ~~and~~ 4) revise the ODF Notification of Operation form to explicitly include a check box for aerial applicators to acknowledge the need to comply with indicate that they must that aerial applicators will adhere to FIFRA labels, especially for herbicides that are prohibited from use in/above waterbodies, for all stream types, including non-fish-bearing streams; ~~and~~ 5) track and evaluate the implementation of voluntary measures for the aerial application of herbicides along non-fish bearing streams to assess the effectiveness of these practices.

For all voluntary programs, the sState must meet all elements needed for a voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

Comment [AC42]: The decision doc also includes this.

Page 2: [1] Comment [WD8]

Don Waye

2/11/2015 4:11:00 PM

From Allison Castellan: "I think we may need to provide a bit more flexibility that a blanket "all" statement since the needed action below talks about upstream waters supporting the PCW criterion. Would "other" be a suitable substitute?

"

Page 2: [2] Comment [HA10]

Henning, Alan

2/6/2015 3:00:00 PM

One of the key RipStream objectives was to look at the temperature response to timber harvest at 33 sites after ODF rules were applied. Ten of the 33 of those sites were actually type N streams or undefined fish-bearing streams that were cut as if they were type F streams. The study was not limited to just salmon/steelhead and bull trout streams, present or past.

Page 2: [3] Comment [WS11]

Will.Stelle

2/6/2015 3:21:00 PM

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Page 2: [4] Comment [PC13]

Psyk, Christine

2/6/2015 3:21:00 PM

We reviewed the OAR rule cited above and believe our statement is correct. OAR 629-635-0200(6) provides that "Operators shall retain all understory vegetation and non-merchantable conifer trees (conifer trees less than six inches DBH) within 10 feet of the high water level on each side of small perennial Type N streams indicated in Table 5". Table 5 — "Vegetation Retention for Specified Small Type N Streams (OAR 629-640-0200(6))"—lists the vegetation requirements for specific geographical regions in the State. Figure 1 "Geographic Regions" (OAR 629-635-0220) is a map of the State divided into seven defined regions and one undefined region. The region defined as the "Coast Range" includes most of the area covered by CZARA. Table 5 provides that "no vegetation" is required for the Coast Range or the Western Cascades regions.

OAR 629-635-0300 "Alternate Vegetation Retention Prescriptions" identifies alternate vegetation retention prescriptions and when the prescriptions apply. The OAR references two tables which list the type of streams where the alternate prescriptions apply. Neither table includes Type N streams. Mr. Whitman is correct regarding the 50' riparian management Area for medium Type N streams, but our concern and the identified gap that needs closing is for the small Type N streams.

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Allison Castellan

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Ex. 5 - Deliberative